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(56) Related Art
US 5518112
US 5799782
US 5575387

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ABSTRACT

1. A storage assembly for storing a plurality of plate-like members is disclosed which includes a plurality of holding means for holding a respective
- 5 plate-like member and having articulation means for hingedly connecting a first holding means holding a first plate-like member to a second holding means holding a second plate-like member adjoining the first holding means, whereby a plurality of plate like members can be stored in a stack such that each plate-like member is pivotable with respect to an adjoining plate-like member.
- 10

The Claims defining the Invention are as follows:-

1. A CD casing storage assembly for storing a plurality of CD casings, said storage assembly including:-
 - 5 a plurality of holding means for holding a respective CD casing and having articulation means for hinging together a first holding means holding a first CD casing and a second holding means holding a second CD casing adjoining the first holding means, the articulation means of the first holding means forming a hinged connection with the articulation means of the second
 - 10 holding means whereby a plurality of plate like members can be stored in a stack such that each CD casing is pivotable with respect to an adjoining CD casing.
2. A storage assembly as claimed in Claim 1, wherein said articulation
15 means includes a pintle or the like and pintle receiving means, said pintle receiving means and said pintle being respectively adapted to receive and engage in a respective pintle and pintle receiving means on respective adjoining holding means.
- 20 3. A storage assembly as claimed in Claim 2, wherein said holding means includes releasable locking means for releasably locking together adjoining CD casings in said stack.



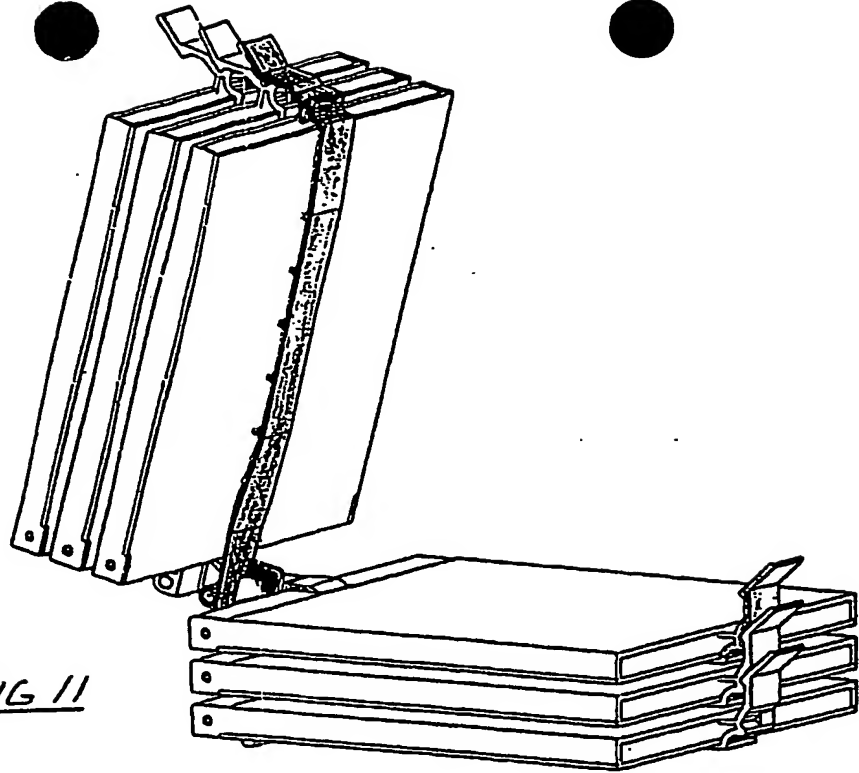


FIG 11

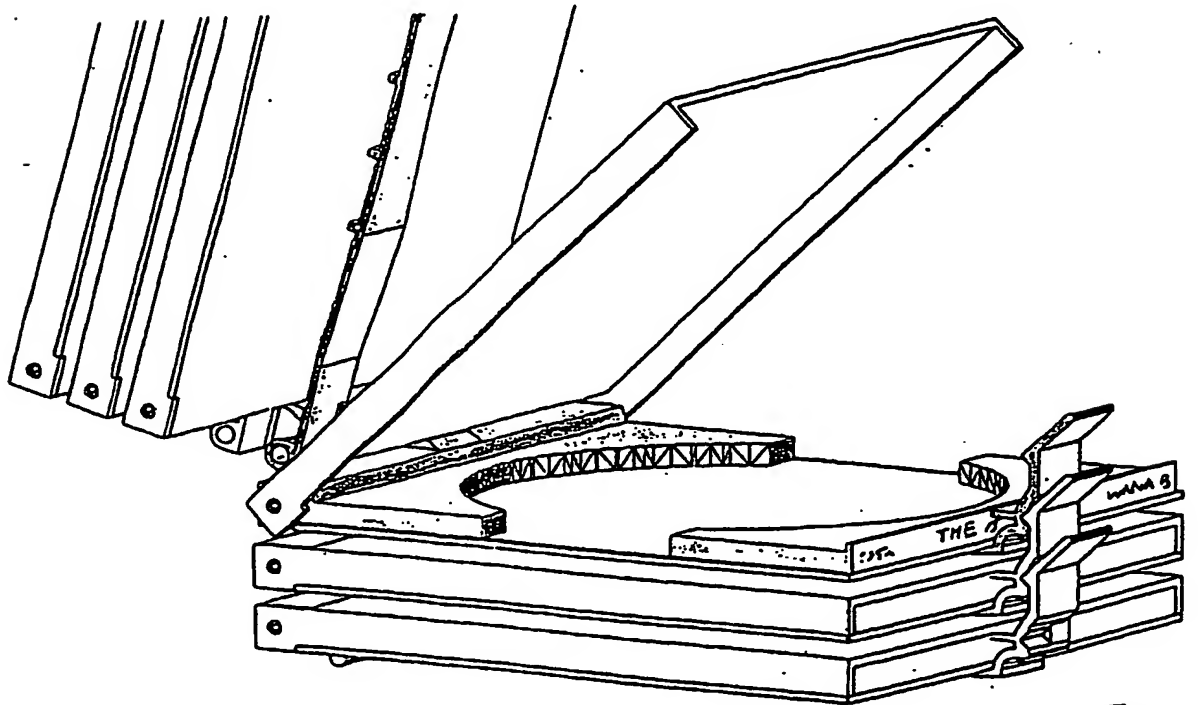


FIG 12

APPLICANT:

BERNARD JOHN WHALAN

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PETTY PATENT SPECIFICATION FOR AN INVENTION ENTITLED:

STORAGE SYSTEM

The following statement is a full description of this invention, including the best method of performing it known to me:

- 1 -



"STORAGE SYSTEM"**Technical Field**

This invention relates to a storage system.

5 The invention has particular but not exclusive application to a method and apparatus for storing plate-like members such as compact discs and the like, and reference will be made throughout this specification to such an application.

10 However it will be appreciated that the invention can be used to store other plate-like members such as slides containing medical samples for example, coins, stamps or other substantially flat articles.

Background of Invention

15 It is known for compact discs (referred to hereafter as CDs) to be stored in specially designed cabinets shaped to contain one or more columns of CDs.

Summary of Invention

20 The present invention aims to provide an alternative to known methods and apparatus for storing plate-like members such as compact discs and the like.

This invention in one aspect resides broadly in a CD casing storage assembly for storing a plurality of CD casings, the storage assembly including:-

25 a plurality of holding means for holding a respective CD casing and having articulation means for hinging together a first holding means holding a first CD casing and a second holding means holding a second CD casing adjoining the first holding means, the articulation means of the first holding means forming a hinged connection with the articulation means of the second holding means whereby a plurality of plate like members can be stored in a stack such that each CD casing is pivotable with respect to an adjoining CD

30 casing.

In another aspect this invention resides broadly in a method of storing a plurality of plate-like members, the method including:-



associating a plurality of holding means with respective plate-like members, the holding means having articulation means, and

hinging to each other a first holding means holding a first plate-like member and a second holding means holding a second plate-like member
5 adjoining the first holding means by engaging respective articulation means;

whereby a plurality of plate like members can be stored in a stack such that each plate-like member is pivotable with respect to an adjoining plate-like member.

It is preferred that the articulation means includes a pintle or the like and
10 pintle receiving means, the pintle receiving means and the pintle being respectively adapted to receive and engage in a respective pintle and pintle receiving means on respective adjoining holding means.

It is also preferred that the holding means includes releasable locking means for releasably locking together adjoining plate-like members in the stack.

15 It is also preferred that the pintle receiving means is a sleeve adapted to closely receive a pintle, the axis of the pintle being parallel to and offset from the axis of the sleeve.

In one embodiment the plate-like member is a CD and the holding means is included in a CD casing. In this embodiment it is preferred that the
20 articulation means is positioned adjacent the hinge hinging the top of the CD casing to the base thereof with the axes parallel to the hinge axis.

Alternatively the plate-like member can be a CD casing and the holding means is adapted to releasably and fixedly engage the CD casing. In this embodiment it is preferred that the articulation means is positionable adjacent
25 the hinge hinging the top of the CD casing to the base thereof with the axes parallel to the hinge axis.

It is also preferred that the releasable locking means is positionable adjacent the side of the CD casing opposite the hinge and adapted to engage the base but not the top.

30 It is also preferred that the releasable locking means includes a detent or the like and detent receiving means, the detent receiving means and the detent being respectively adapted to receive and engage in a respective detent and detent receiving means on respective adjoining holding means.



It is also preferred that the holding means is a strip-like member adapted to span the breadth of the CD casing and having a shoe-like recess at one end for closely receiving the hinged side of the CD casing and a heel at the other end for closely engaging the base of the CD casing.

5 In a further aspect this invention resides broadly in a holder for holding a plate-like member and including:-

articulation means for hinging together a first holder holding a first plate-like member and a second holder holding a second plate-like member adjoining the first plate-like member, the articulation means including pintle receiving
10 means and a pintle or the like, the pintle receiving means and the pintle being respectively adapted to receive and engage in a respective pintle and pintle receiving means on respective adjoining holding means, and

releasable locking means for releasably locking together adjoining plate-like members;

15 whereby a plurality of plate like members can be stored in a stack such that each plate-like member is pivotable with respect to an adjoining plate-like member.

It is preferred that the holder is a strip-like member adapted to span the breadth of a CD casing and having a shoe-like recess at one end for closely
20 receiving the hinged side of the CD casing and a heel at the other end for closely engaging the base of the CD casing at the side opposite the hinged side.

It is also preferred that the articulation means is located adjacent the shoe-like recess with the axes parallel to the hinge axis when a CD casing is received in the shoe like recess.

25 It is also preferred that the releasable locking means is located adjacent the heel.

Description of Drawings

In order that this invention may be more easily understood and put into
30 practical effect, reference will now be made to the accompanying drawings which illustrate a preferred embodiment of the invention, wherein:-

FIG 1 is a perspective view of a CD holder in accordance with the invention;



FIG 2 illustrates a CD casing;

FIG 3 shows the CD holder in engagement with the CD casing;

FIGS 4 to 7 illustrate the manner in which two holders engage so that adjoining CD casings are stacked together;

5 FIGS 8 and 9 illustrate adjoining CD casings respectively pivoting and clipped together;

FIG 10 illustrates a stack of CD casings clipped together;

FIG 11 shows a central CD casing in the stack being accessed;

FIG 12 shows a CD removed from the accessed CD casing;

10 FIG 13 shows the CD casings being fanned out for display;

FIGS 14 and 16 show a stack of CD casings with, respectively, a carry handle and a carry strap illustrated separately in FIG 15;

FIG 17 shows a wall mount for mounting a display of CD casings on a wall or the like;

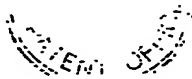
15 FIG 18 shows a number of CD casings mounted on the wall mount, and

FIG 19 illustrates a CD casing holder showing an endorsement block.

Description of Preferred Embodiment of Invention

FIG 1 shows a clip or holder 10 for holding a plate-like member such as a
 20 CD casing seen in FIG 2. Holder 10 is a strip like member 11 having articulation means 12 at one end for hingedly connecting a first holder 20 holding a first CD casing 21 to a second holder 22 holding a second CD casing 23 adjoining the first CD casing 21. Articulation means 12 has pintle receiving means in the form of a sleeve 13 and a pintle 14. As can be seen in FIGS 4 to 7 and as will
 25 be subsequently described with reference therewith, sleeve 13 and pintle 14 on CD casing 21 and respectively received by and engage in pintle 15 and sleeve 16 on adjoining CD casing 23. The axis of the pintle is parallel to and offset from the axis of the sleeve.

Holder 10 also has releasable locking means 17 for releasably locking
 30 together adjoining CD casings. As can be seen in FIGS 8 and 11 to 13, a plurality of CD casings can be stored in a stack such that each CD casing is pivotable with respect to an adjoining CD casing.



Holder 10 is configured to span the breadth of a CD casing and has a shoe-like recess 18 at one end which closely receives the hinged side 19 of CD casing 25 as seen in FIG 3. Holder 10 has a heel 24 at the other end and the heel closely engages the base 26 of CD casing 25. Thus holder 10 releasably and fixedly engages the CD casing with pintle and sleeve adjacent the hinge hinging the top 27 of CD casing 25 to the base 26 such that the pintle axis and the sleeve axis which are parallel to each other are parallel to the hinge axis.

Releasable locking means 17 has a detent 28 and a detent receiving means in the form of a recess 29. As is best seen in FIG 10, recess 29 and detent 28 are respectively receive by and engage in a respective detent and recess on respective adjoining holders.

It is also preferred that the releasable locking means 17 is positionable adjacent the side of the CD casing opposite the hinge and adapted to engage the base but not the top.

In use, a clip or holder 10 is slipped over the side of CD 25 seen in FIG 3. There is one clip for each CD. When a second clip has been slipped over a second CD, the two are assembled as seen in FIG 4 wherein CD 23 is rotated between approximately 145° and 155° and positioned so that the pintle of clip 22 is aligned with the sleeve of clip 20. As seen in FIG 5, the pintle of clip 22 is then inserted into a sleeve of clip 20. And as seen in FIGs 6 and 7, as clip 22 is rotated back into position, the arm holding the pintle of clip 22 is captured by the wall on clip 20.

As seen in FIGs 8 and 9, the detent of the releasable locking means is snapped into the recess of the adjoining clip.

As seen in FIG 10 a stack can then be assembled according to requirements.

To access a CD in clip 30, a finger is used to prise back the tab on clip 30. Clip 31 is then rotated upwardly as seen in FIG 11, and the lid of the CD container can be opened as seen in FIG 12. Moreover, the CDs can be displayed in a fan-type arrangement as illustrated in FIG 13 and a handle can be incorporated in a similar fashion as illustrated in FIG 14. A belt or clip 31 illustrated in FIG 15 can be used with the stack as illustrated in FIG 16 for use with a CD walkman etc. Alternatively, a bracket for wall mounting 32 is



illustrated in FIG 17 which offers potential for CD point of sale display as illustrated in FIG 18.

As seen in FIG 19, the clip is designed with strengthening ribs on the side resting against the CD and this maximises the potential for endorsements and placement of product badges 33.

It will be appreciated that more than one clip or holder can be used with each CD. Furthermore, the holder could be incorporated in the CD casing or the like, with the articulation means positioned adjacent the hinge hinging the top of the CD casing to the base thereof with the axes parallel to the hinge axis. (This embodiment is not illustrated).

It will of course be realised that whilst the above has been given by way of an illustrative example of this invention, all such and other modifications and variations hereto, as would be apparent to persons skilled in the art, are deemed to fall within the broad scope and ambit of this invention as is herein set forth.

BERNARD JOHN WHALAN

by

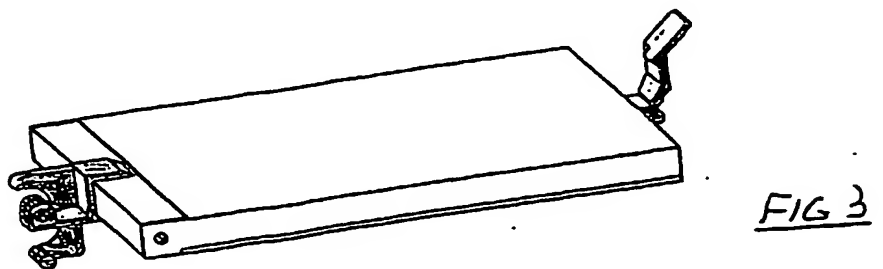
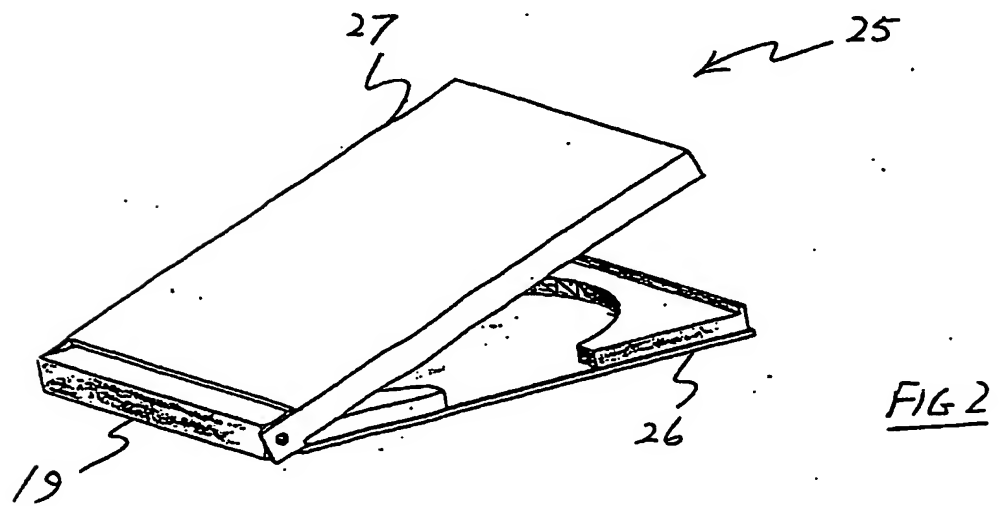
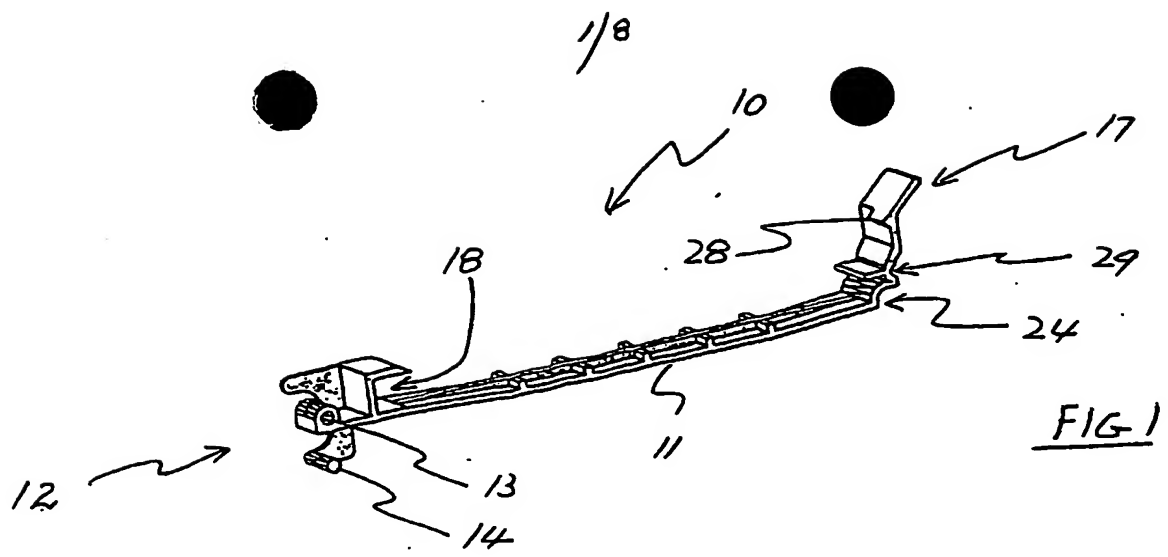
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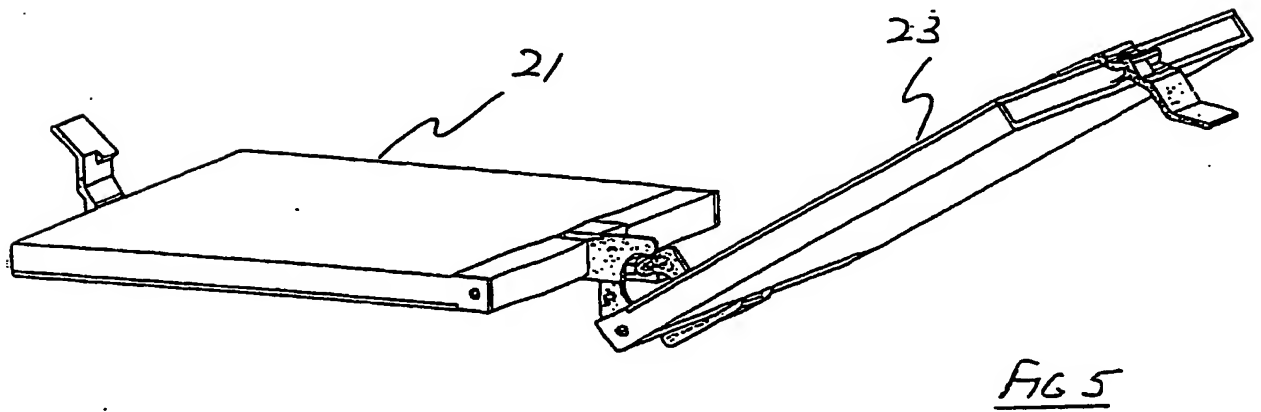
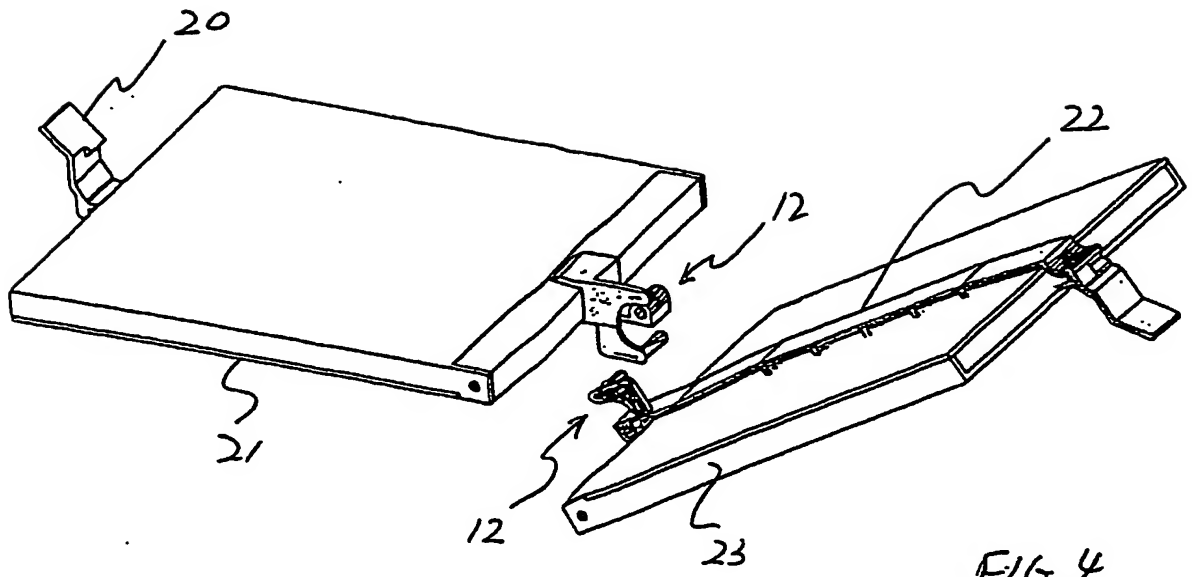


The Claims defining the invention are as follows:-

1. A CD casing storage assembly for storing a plurality of CD casings, said storage assembly including:-
 - 5 a plurality of holding means for holding a respective CD casing and having articulation means for hinging together a first holding means holding a first CD casing and a second holding means holding a second CD casing adjoining the first holding means, the articulation means of the first holding means forming a hinged connection with the articulation means of the second
 - 10 holding means whereby a plurality of plate like members can be stored in a stack such that each CD casing is pivotable with respect to an adjoining CD casing.
2. A storage assembly as claimed in Claim 1, wherein said articulation
15 means includes a pintle or the like and pintle receiving means, said pintle receiving means and said pintle being respectively adapted to receive and engage in a respective pintle and pintle receiving means on respective adjoining holding means.
- 20 3. A storage assembly as claimed in Claim 2, wherein said holding means includes releasable locking means for releasably locking together adjoining CD casings in said stack.







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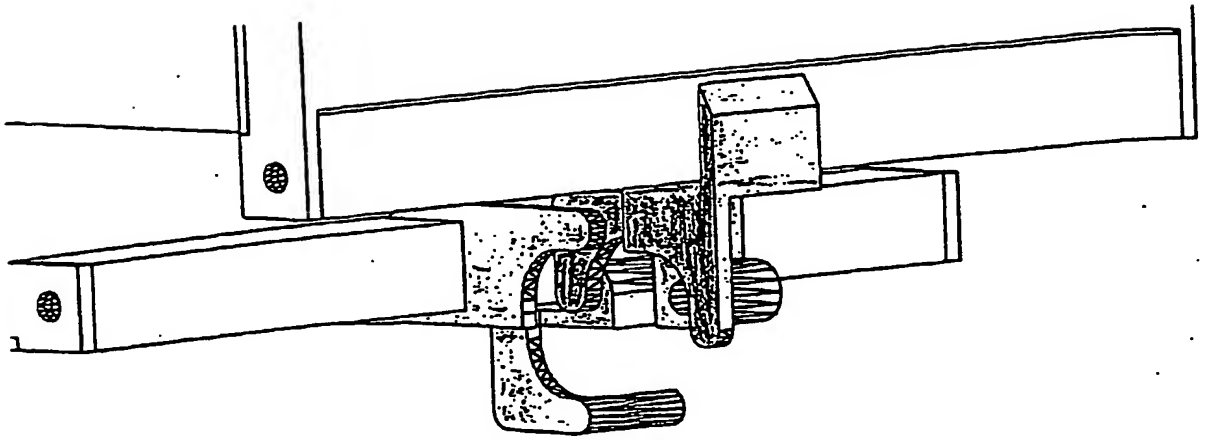


FIG 6

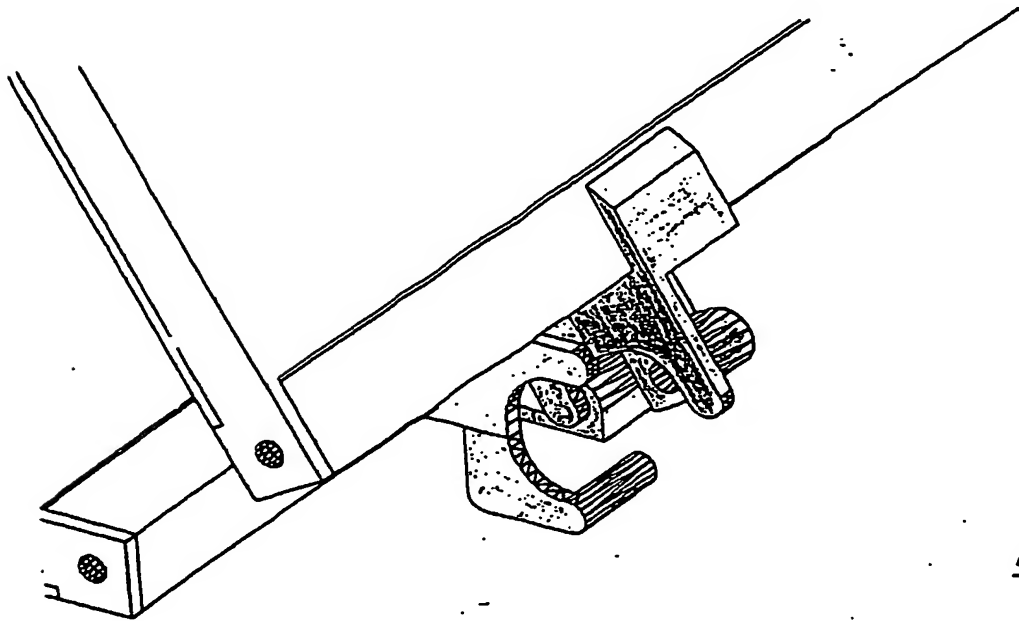


FIG 7

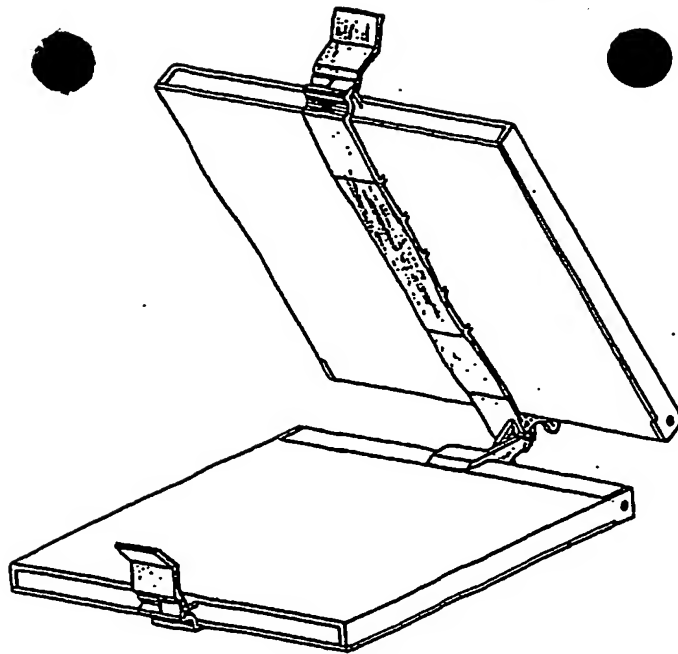


FIG 8

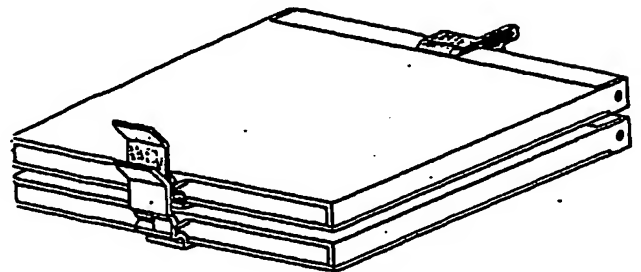


FIG 9

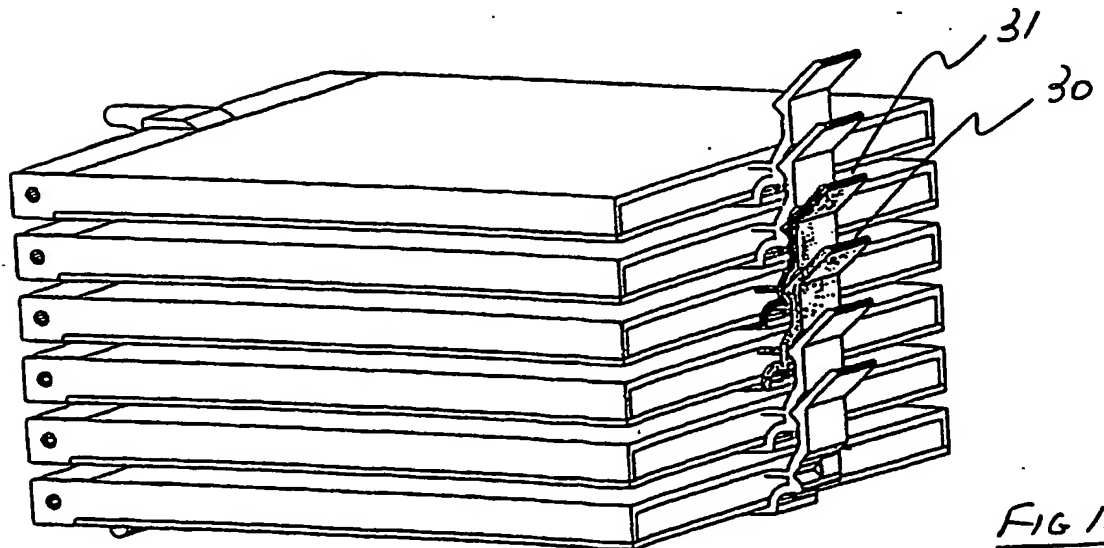


FIG 10

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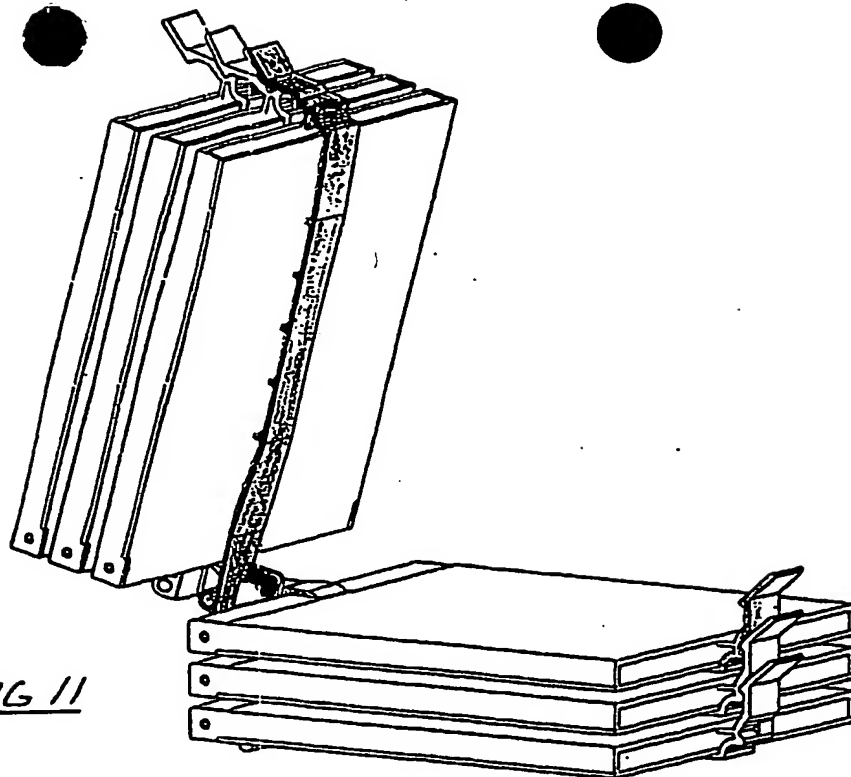


FIG 11

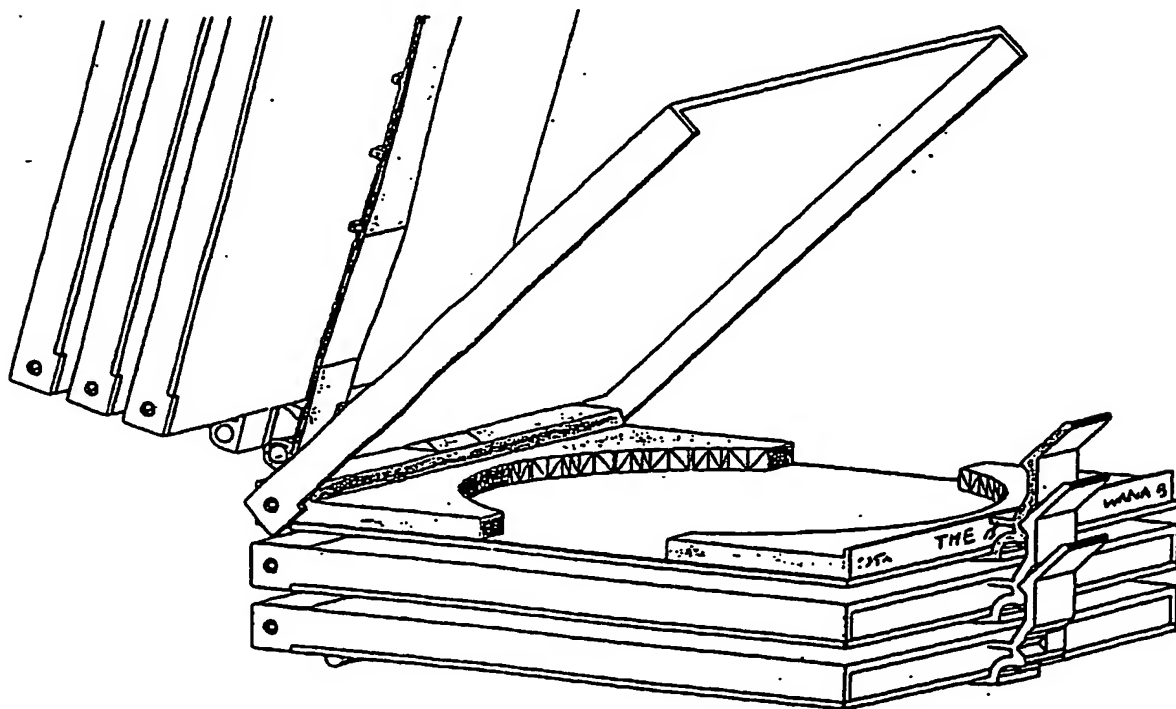
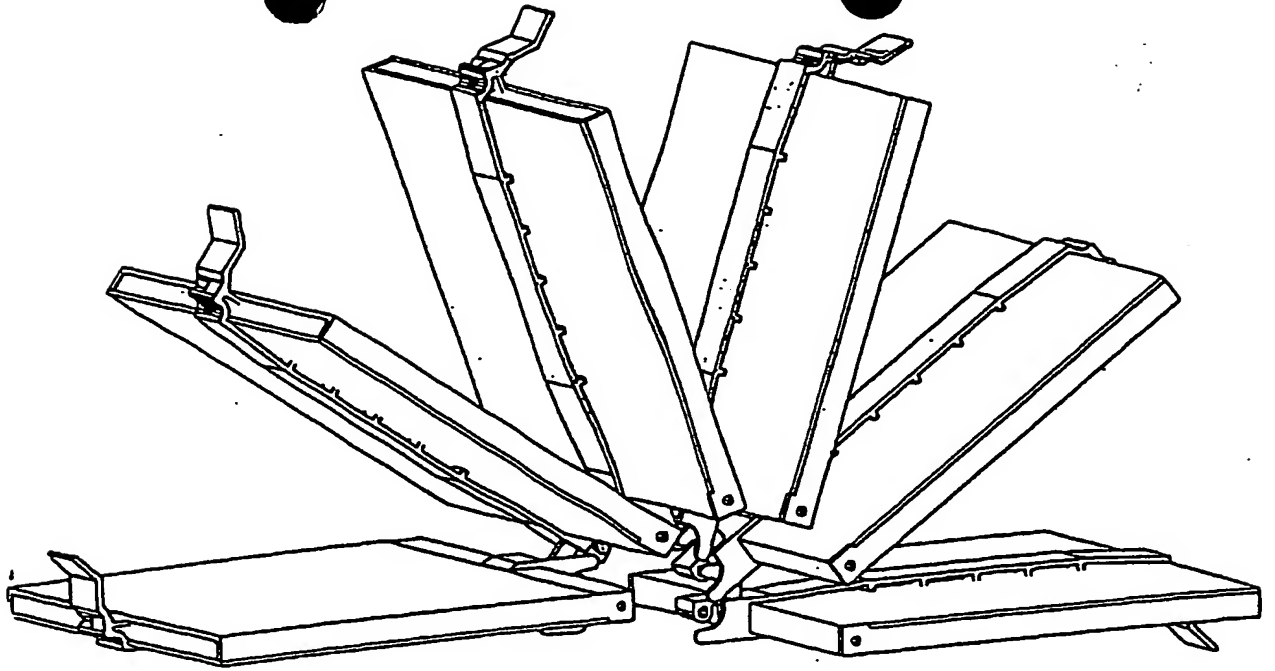
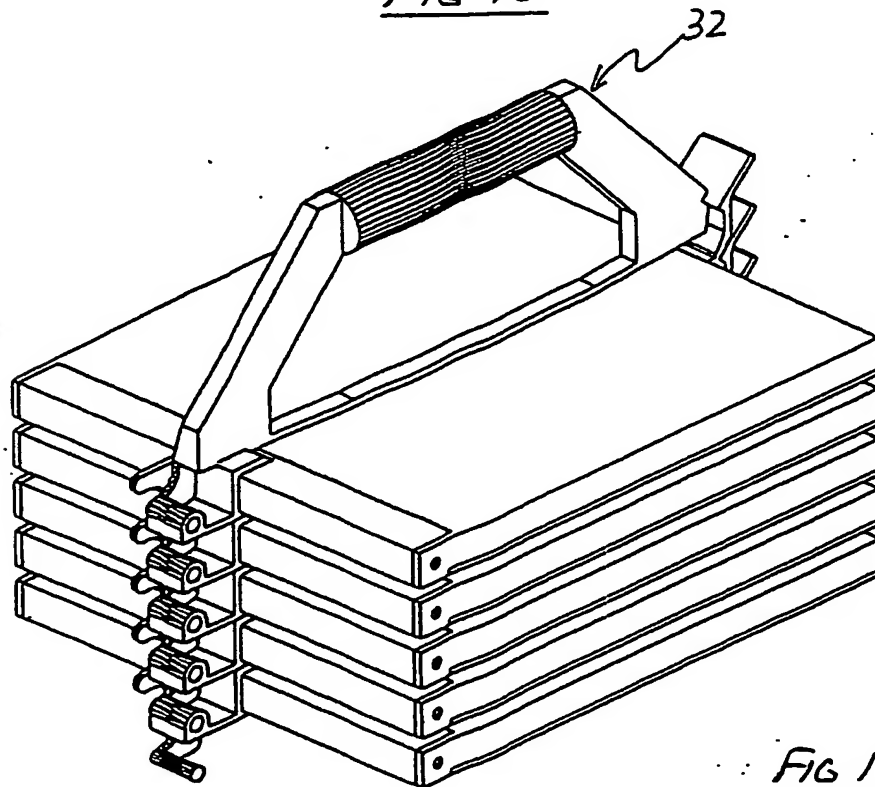


FIG 12

FIG 13FIG 14

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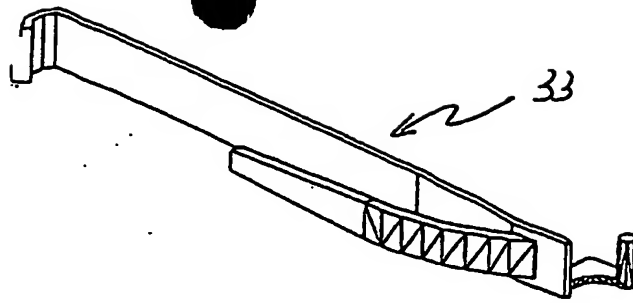


FIG 15

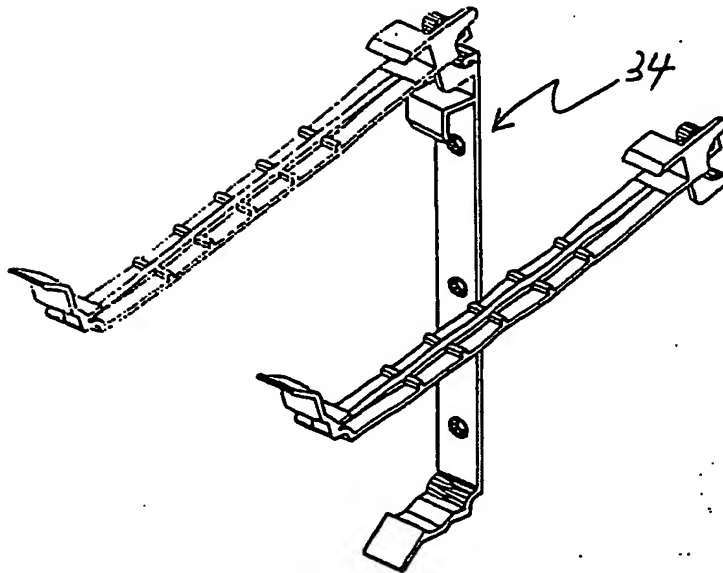
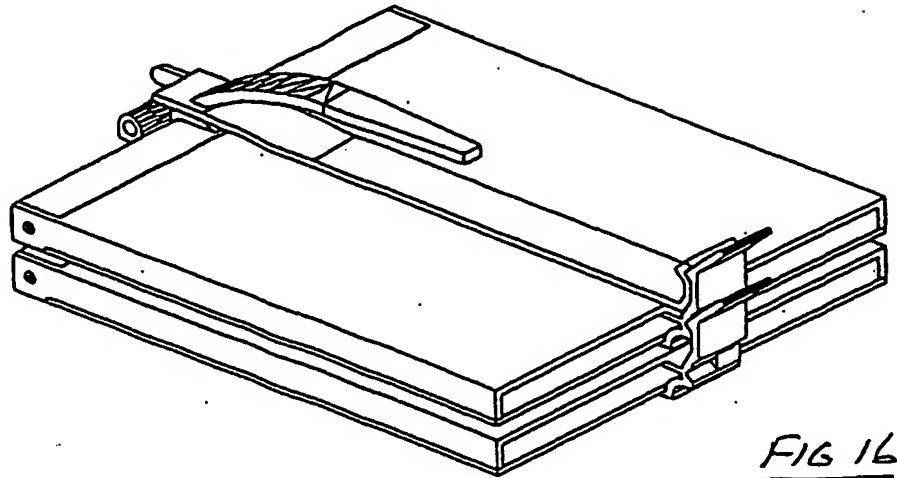


FIG 17

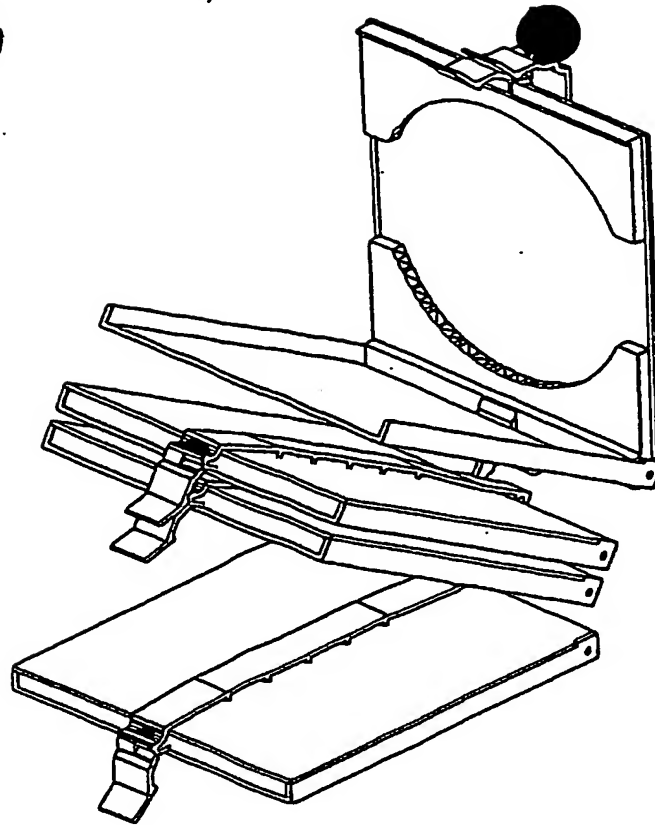


FIG 18

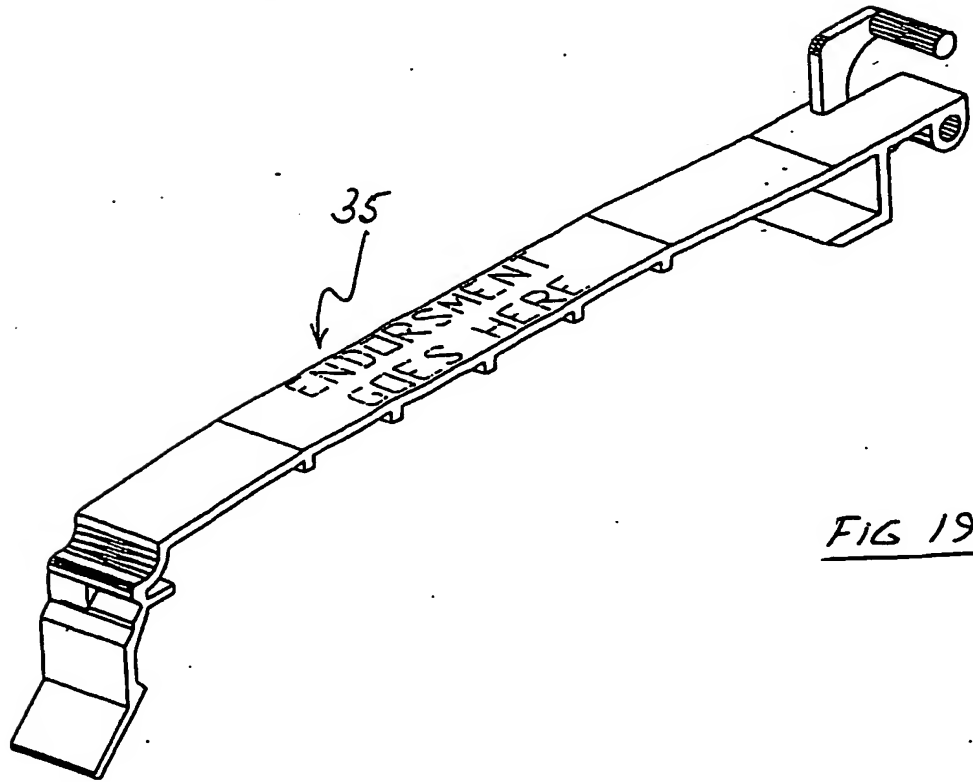


FIG 19

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